

CONTINUOUS PM2.5 MASS PARTICULATE MONITOR

- Continuous PM Mass Measurement of PM2.5 Particulate (indicates PM10, PM Course)
- Real-Time One (1) Minute Running Measurements
- No Radioactive Source
- No Sample Collection Media – Tape and/or Disc
- In-field detector verification and adjustment
- Field upgradeable to PM10
- User Configurable Operator Interface
- Standard Two (2) Year Warranty
- No Charge Lifetime Technical Support by Phone, Email or Fax

Performance	
Measurement Principle	Broadband spectroscopy using 90° white-light scattering with Polychromatic LED
Particle size resolution	256 sizes over 0.18 – 20 µm range, combined to 64 channels for mass calculation
PM Mass Measurements	PM10, PM2.5, and PM10 -2.5 simultaneously
PM Mass Resolution Measurement Range	0.1 - 10,000 µg/m ³
Mass Measurement & Display Resolution	0.1 µg/m ³
Precision	±0.5 ug/m ³ (1-hr. average)
Lower Detectable Limit	<0.1 ug/m ³ (1-hr. average)
Data Rate	10 second to 48 hours (user selectable)
Mass Concentration Accuracy	Exceeds US EPA PM10 FEM and Class III FEM PM2.5 performance requirements for additive and multiplicative bias compared to FRM samplers
Flow Rate	5.0-lpm sample flow (Standard model); 11.67-lpm optional bypass flow (with optional PM10 measurement)
Flow Accuracy	Within ±1%; (Typically within ±0.5%)
Operating Conditions:	
Operating Temperature	0 – 50 °C, non-condensing
Ambient Temperature	-40 – 60 °C
Ambient Relative Humidity	0 - 100%
Sample Humidity Control	24 VDC, 90 W (max) heater controlled to 35% RH
Weatherproof enclosure required with 0 – 50 °C, non-condensing environmental control	
Requires only 10-min warm-up time	
Interfaces and Data Storage	
Analyzer interface with full touch screen display and premium operating interface software	
4 GB memory allows for > 1 year of internal data storage	
Front Panel USB Ports	2x type-A Peripheral Ports
Optional Rear Panel USB Port	1x Type-B Communication Port
Ethernet Communication (supports TCP/IP Modbus protocol)	
Electrical	

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T640 instrument	100 – 230 VAC 50/60 Hz, Power consumption < 120 W @ 120 VAC
External pump for optional bypass flow on PM10 measurements	100 - 120 VAC 60 Hz or 220-240 VAC 50/60 Hz, Power consumption <360 W @ 120 VAC
Physical Specifications	
Unit dimensions (HxWxD)	7" x 17" x 14" (17.8 x 43.2 x 35.6 cm)
Unit weight	19 lbs (8.6 kg)
Sample heater tube height	43" (109 cm)
Sample heater tube weight	6 lbs (2.7 kg)
Certifications	US EPA PM2.5 Federal Equivalent Method EQPM-0516-236 US EPA PM2.5 Federal Equivalent Method EQPM-0516-238* US EPA PM10 Federal Equivalent Method EQPM-0516-239* US EPA PM10-2.5 Federal Equivalent Method EQPM-0516-240*